

PATENT

Prior to examination of the above-identified application and further to the Preliminary Amendment filed June 11, 2001, please enter the following amendment and consider the following remarks.

IN THE CLAIMS:

Please amend the claims as follows::

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23. (Amended) An apparatus for simultaneously monitoring an array of reaction sites for light indicating that a reaction is taking place at a particular site, comprising:

- a sample receptacle for receiving a plurality of liquid samples at said array of reaction sites;
- a dispenser for dispensing at least one reagent into said samples;
- an optically sensitive device arranged so that in use the light sample will impinge upon a particular predetermined region of said optically sensitive device;
- a light level determination device for determining the level of light impinging upon each of said predetermined regions; and
- a recorder to record the variation of said light level with time for each of said liquid samples.

24. (Amended) An apparatus as claimed in Claim 23, wherein said sample receptacle comprises a plate.

25. (Amended) An apparatus for identifying target bases in DNA sequences comprising:

- a plate for receiving a plurality of liquid samples at respective reaction sites;

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Concl'd.*

~~a dispenser for dispensing at least one reagent into said samples;
an optically sensitive device arranged so that in use light generated by the reaction
of a particular liquid sample signifying the incorporation of a nucleotide will impinge upon a
particular region of said optically sensitive device;
a light level determination device for determining the level of light impinging
upon each of said predetermined regions; and
a recorder for recording the variation of said light level with time.~~

32. (Amended) An apparatus as claimed in Claim 23, comprising a recorder to record a measure of the total light output from a given reaction site.

33. (Amended) An apparatus as claimed in Claim 23, comprising a converter to convert the electrical output from said optically sensitive device into a digital signal.

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34. (Amended) An apparatus as claimed in Claim 33, wherein said converter is adapted to convert the signals from a plurality of neighbouring pixels in a single block.

35. (Amended) An apparatus as claimed in Claim 24, wherein said plate is in contact with a heat regulator.

36. (Amended) An apparatus as claimed in Claim 24, wherein one or more masks are provided between reaction sites on the plate.

37. (Amended) An apparatus as claimed in Claim 36, wherein said one or more masks are provided by channels in a block.

38. (Amended) An apparatus as claimed in Claim 37, wherein said block comprises a temperature regulator.

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39. (Amended) An apparatus as claimed in Claim 37, wherein said channels each comprise an upper part and a lower part and flare outwardly towards said lower part.

40. (Amended) A method of identifying a target base in a DNA sequence, comprising detecting a light level emitted from a plurality of reaction sites on a respective plurality of portions of an optically sensitive device, converting the light impinging upon each of said portions of said optically sensitive device into an electrical signal which is distinguishable from the signals from all other said portions, determining a light intensity for each of said portions from the corresponding electrical signal, and recording the variations of said electrical signals with time.

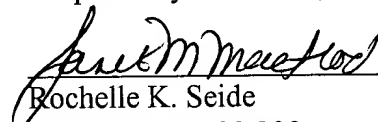
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R E M A R K S

Claims 23-25 and 32-40 have been amended to broaden the scope of the claims consistent with the subject matter described and enabled by the present specification. No new mater has been added by this amendment.

Favorable consideration and allowance of all pending claims is earnestly solicited.

Respectfully submitted,



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